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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,974	11/30/2001	Haruo Ichikawa	Q66892	4743

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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

FOX, CHARLES A

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,974

Applicant(s)

ICHIKAWA ET AL

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment A filed on October 16, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are are rejected under 35 U.S.C. 102(b) as being anticipated by Swain. In regards to claim 1 Swain US 5,466,114 discloses a method of transferring a roll comprising the steps of:

bringing a roll loading shaft into engagement with a roll retainer shaft holding a plurality of rolls;

releasing said rolls from being held on roll retaining shaft;

supporting said rolls;

moving and transporting one of said rolls along the roll retaining shaft and onto said roll loading shaft;

fixing said one roll to said roll loading shaft;

wherein releasing the rolls from the roll retaining shaft comprises the step of pressing the end of the retainer shaft by the end of the roll loading shaft to release the rolls under a pressing force.

In regards to claim 4 Swain discloses an apparatus for transferring a roll held on a supply carriage comprising:

a roll loading shaft (110) for engaging a roll retaining shaft (14) of said roll supply carriage which holds a plurality of rolls;

releasing means (24) for releasing said rolls from being held on said retaining shaft (14);

transferring means (not numbered) for moving one of said rolls onto said roll loading shaft, see column 9 lines 33-40;

fixing means for fixing said one of said rolls to said loading shaft. See column 5 lines 44-50;

wherein said releasing means has a pressing member (112) disposed at the axial center of said roll loading shaft for pressing an axial center of said roll retaining shaft, to release said rolls from said retaining shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain as applied to claims 1 and 4 above, and further in view of Van Breen. In regards to claim 3 Swain teaches the limitations of claim 1 as above, Swain further teaches that the pressing tip of the loading shaft rotates a portion of the retaining shaft. Swain does

not teach moving the rolls by the rotation of said roll loading shaft. Van Breen US 4,290,734 teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the roll moving methods taught by Swain with the methods taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

In regards to claim 7 Swain teaches the limitations of claim 4 as above, he further teaches an engaging means (112) disposed at the axial center of the loading shaft for engaging a shaft in the axial center of the retaining shaft, and that said engaging means rotates to cause said shaft in the retaining shaft. Swain does not teach a ball screw for moving the rolls along the retaining shaft. Van Breen teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll retaining shaft taught by Swain with the roll moving device taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain as applied to claim 4 above, and further in view of Rauh. In regards to claim 5 Swain teaches the limitations of claim 4 as above, he does not teach a pushing means for a support members of the loading shaft. Rauh US 4,953,805 teaches a loading shaft (12) for rolls of film where the shaft has a support member (13) for supporting the side of one of said rolls and a displacement means (18) for moving said support member

along said loading shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the support member as taught by Rauh on the device taught by Swain in order to allow the device to expel roll cores after the film is removed from the roll.

In regards to claim 10 Swain teaches the limitations of claim 4 as above, he does not teach the fixing means as having finger members. Rauh teaches a means for fixing a film roll to a loading shaft comprising finger members (12) that are displaceable towards an outer circumferential surface of said roll loading shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention the fixing members as taught by Rauh on the device taught by Swain in order to allow the device to hold and release roll cores as needed.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain and Van Breen as applied to claim 7 above, and further in view of Schlitz. Swain and Van Breen teach the limitations of claim 7 as above they do not teach an Oldham coupling between the loading and retaining shafts. Schlitz US 1,907,447 teach an Oldham coupling for joining two shafts, said coupling comprising:

- a hub (22) rotated by a drive means (20);

- a slide element (25) slidable in a direction substantially perpendicular to the longitudinal axis of the hub;

- a sleeve (42) disposed around said hub and said slide element which limits the range of movement of the slide element;

said slide element engages a driven shaft to transmit the rotational motion of said drive means (20).

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide an Oldham coupling as taught by Schlitz on the device taught by Swain and Van Breen in order to account for any misalignment between the loading and retaining shafts.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Read in view of Swain. In regards to claim 11 Read US 4,557,515 teaches a roll supply carriage comprising:

a roll retaining shaft (30) for holding a roll thereon;

fixing means (45,45a) disposed in a tip of said shaft for fixing said roll to said shaft;

a switching means (67) for retaining and releasing a roll from said retaining shaft.

Read does not teach a means of moving the roll on the retaining shaft. Swain teaches a transferring means (not numbered) for moving one of said rolls along said roll retaining shaft, see column 9 lines 33-40. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll transferring means taught by Swain to the device taught by Read in order to move a roll from the device without manual intervention.

In regards to claim 12 Read further teaches said fixing means has finger members displaceable towards the outer circumference of said retaining shaft.

In regards to claim 13 Read also teaches the switching mechanism comprises:
cams (57,58) for bringing said fixing members into and out of the position of holding said roll on said retaining shaft;
displacing means (63) for displacing said cams.

In regards to claim 14 Read further teaches that said displacing means is disposed on the tip of said retaining shaft and movable along said shaft to displace the cams.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read and Swain as applied to claim 11 above, and further in view of Van Breen. Read and Swain teach the limitations of claim 11 as above, they do not teach moving the rolls from the retaining shaft with a ball screw. Van Breen teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll moving device taught by Read and Swain with the roll moving device taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read and Swain as applied to claim 11 above, and further in view of Rauh and further in view of Sano et al. Read and Swain teach the limitations of claim 11 as above they do not teach the carriage as being a light shielded case with a labyrinth seal.

Rauh teaches a carriage for transferring rolls of film, wherein said carriage interior is shielded from ambient light. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a light shielded carriage as taught by Rauh for the device taught by Read and Swain in order to protect the light sensitive material being transferred. Rauh does not teach a labyrinth seal on said carriage.

Sano et al. JP 07034759 A teach using a labyrinth seal on the opening of a dark room in order to prevent light from entering said dark room. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Read, Swain and Rauh with a labyrinth seal as taught by Sano et al. in order to insure that no light impinges upon the rolls as they are being moved from the carriage to a process machine.

Response to Amendment

The amendments filed on October 16, 2003 have been entered into the record.

Response to Arguments

Applicant's arguments filed October 16, 2003 have been fully considered but they are not persuasive. In regards to the arguments for claims 1 and 4 applicant states that the device taught by Swain does not release the roll from the mandrel and thereby not allowing the device to "releases aid rolls from being held on said roll retainer shaft". In column 9 lines 5-10 swain discloses depressing the end button to disengage most wheels from the roll, wherein it can readily be moved from the mandrel. Since the rolls can not be moved readily when in contact with all wheels the rolls are taken to be fixed

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to the mandrel. Further in column 9 lines 60-65 swain further discloses rotating the rolls by rotation of the mandrel, if the rolls are not fixed to the mandrel they will not rotate as disclosed.

In regards to the arguments against claims 3 and 7, the claim does not contain any limitation as to what drives the ball screw. Because the van Breen has structure that meets the limitations of the claims as written they read upon the claims. The structure the applicant states as being an exemplary advantage over van Breen is not written into the claim, and as such can not be considered in making or arguing the rejection.

In regards to the rejection of claims 5 and 10 there is no mention in the claims about damage to the rolls. The language of the claim is met by the Rauh reference, in that Rauh teaches a plurality of fingers displaceable towards the outer circumference of the rolls to hold said rolls on the shaft. It is merely speculation that the rolls will be damaged by the Rauh reference, as the reference does not describe the rolls it handles as being damaged by the device.

In regards to the arguments against the rejections of claim 8 and 9, the Schlitz reference does teach an Oldham coupling, thereby meeting the limitations of claim 8. Further while the device taught by Schlitz can not be released while it is operating, it is made to be released so that tools can be changed out. It is not pertinent to the claim is the releasing of the coupling is arbitrary. In fact for the instant invention to work properly the release of the coupling should be selective and not arbitrary as taught by Schlitz.

In arguing against the rejections of claims 11-14 applicant argues that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both devices are designed to handle rolls, and the secondary reference is used to teach a device for moving the rolls onto or off of the mandrel. The support system for the rolls is not material in making the combination, the combination is based on Swain teaching a device for moving the rolls. One of ordinary skill in the art would recognize that moving the rolls automatically is a clear advantage over moving them manually. The examiner holds there is motivation to combine the references and the rejections are upheld.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

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12-23-03